



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Michel Koopmans

Serial No.: 09/960,089

Filed: September 21, 2001

For: BUMPING TECHNOLOGY IN
STACKED DIE CONFIGURATIONS

Confirmation No.: 5057

Examiner: A. Chambliss

Group Art Unit: 2827

Attorney Docket No.: 2269-4882US
(01-0229.00/US)

Notice of Allowance Mailed:

July 16, 2003

Express Mail Mailing Label No.: EV 326923005 US

Date of Deposit with USPS: October 13, 2003

Person making Deposit: Christopher Haughton

TRANSMITTAL LETTER

Mail Stop Issue Fee
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Applicant submits herewith Part B - Fee(s) Transmittal for the above-captioned application and a check in the amount of \$1,645.00 in payment for the issue fee, the publication fee, and five (5) copies of the patent when issued.

Also, enclosed is an Amendment Pursuant to 37 C.F.R. § 1.312(a) (18 pages); Supplemental Information Disclosure Statement (3 pages); Form PTO/SB/08 (1 page); copy of

cited reference (1 document); Check No. 5113 in the amount of \$180.00; Comments on Statement of Reasons for Allowance (3 pages); and Fee Addressee for Receipt of PTO Notices Relating to Maintenance Fees (2 pages).

Applicant understands that no additional fees are required. However, if the Office determines that any comparison fees or other additional fees are required, the Commissioner is authorized to charge any such fees to TraskBritt Deposit Account No. 20-1469. A copy of this Transmittal Letter is enclosed for deposit account charging purposes.

Respectfully submitted,



Krista Weber Powell
Registration No. 47,867
Attorney for Applicant(s)
TRASKBRITT
P.O. Box 2550
Salt Lake City, Utah 84110-2550
Telephone: 801-532-1922

Date: October 13, 2003

KWP/ps:ljb

Enclosures: Part B - Issue Fee Transmittal
Check No. 19512 in the amount of \$1,645.00
Copy of Transmittal Letter
Amendment Pursuant to 37 C.F.R. § 1.312(a) (18 pages)
Supplemental Information Disclosure Statement (3 pages)
Form PTO/SB/08 (1 page), and copy of cited reference (1 document)
Check No. 5113 in the amount of \$180.00
Comments on Statement of Reasons for Allowance (3 pages)
Fee Addressee for Receipt of PTO Notices Relating to Maintenance Fees (2 pages)



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COMMENTS ON STATEMENT OF REASONS FOR ALLOWANCE

Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In the Office Action of January 16, 2003, with respect to claims 25-28, the Examiner indicates:

[T]he prior art of record does not teach or suggest the combination of a third semiconductor die of the at least one additional semiconductor die is disposed directly below the second semiconductor die. The third semiconductor die includes an active surface and a backside, wherein the active surface includes a plurality of bond pads and a pad circuit thereon, wherein the plurality of bond

pads of said third semiconductor die electrically connected to integrated circuitry of said third semiconductor die, said at least one redistribution bond pad circuit independent from the integrated circuitry of said third semiconductor die and including a plurality of redistribution bond pads.

Applicants concur with the reasons as stated by the Examiner insofar as they comprise a summary, and are exemplary and not limiting as to claims 25-28. The allowed dependent claims 25-28 include other and further features and elements. Accordingly, the scope of the claims must be determined from the literal language of each as a whole, as well as equivalents thereof.

In the Notice of Allowability, the Examiner indicates:

[T]he prior art of record does not teach or suggest the combination of a first semiconductor die with a plurality of bond pads and at least one redistribution bond pad circuit thereon, wherein the plurality of bond pads are electrically connected to integrated circuitry of the first semiconductor die and the redistribution bond pad circuit is electrically isolated from the integrated circuitry.

A second semiconductor die having a plurality of bond pads, wherein active surface of the second die faces the active surface of the first die. An electrical connector extending between at least one of the plurality of bond pads on the second die and at least one redistribution bond pad of the plurality of the redistribution bond pads on the first die in claims 1 and 22.

Applicants concur with the reasons as stated by the Examiner insofar as they comprise a summary, and are exemplary and not limiting as to claim 1. However, independent claim 22 as allowed includes other and different language than that specified by the Examiner. The allowed dependent claims 2- 21 and 23-35 include other and further features and elements. Accordingly, the scope of the claims must be determined from the literal language of each as a whole, as well as equivalents thereof.

In the Notice of Allowability, the Examiner further indicates:

A first semiconductor die with a plurality of bond pads and a second semiconductor die with a plurality of bond pads, wherein the active surface of the second die faces the active surface of the first die. The second die having a peripheral edge extending laterally beyond at least one corresponding peripheral edge of the plurality of peripheral edges of the first die. A third semiconductor die disposed directly below the second die, wherein the third die has a plurality of bond pads and at least one redistribution bond pad circuit thereon. The plurality of bond pads are electrically connected to integrated circuitry of the third semiconductor die and the redistribution bond pad circuit is independent from the

integrated circuitry. An electrical connector extending between at least one of the plurality of bond pads on the second die to contact an area of a substrate adjacent to the peripheral edge of the first die in claim 98.

Applicants concur with the reasons as stated by the Examiner insofar as they comprise a summary, and are exemplary and not limiting to claim 98. However, the allowed dependent claims 99-108 include other and further features and elements. Accordingly, the scope of the claims must be determined from the literal language of each as a whole, as well as equivalents thereof.

Independent claim 76 as allowed includes other and different language than that specified by the Examiner, and the allowed dependent claims 77-86 include other and further features and elements. Accordingly, the scope of the claims must be determined from the literal language of each as a whole, as well as equivalents thereof.

Respectfully submitted,



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Document in ProLaw